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**Remarks**

Reconsideration of this application is requested. By this response to the Office Action dated September 22, 2004, no claims have been amended. A listing of these claims is included in this amendment. Claims 1-18 remain in the application.

**Response to the 35 U.S.C. §103(a) Rejection**

The Office Action rejected claims 1-18 under 35 U.S.C. §103(a) as being unpatentable over Linsay et al. (U.S. patent 6,085,076).

**Claims 1-7**

Applicants' amended claim 1 recites, among other things, receiving a preamble by multiple antennas; and sequentially evaluating signals from the multiple antennas to ascertain an antenna providing a higher signal quality than other antennas, wherein the evaluation is based on symbols in the preamble.

Linsay et al. teach in FIG. 4 an architecture for a communication base station having a plurality of antennas connected to a plurality of radios. Linsay et al. state in column 7, lines 36-49, that each radio comprises reception, demodulation and correlation. Further, each radio receives a radio signal over an antenna and derives certain quality metrics associated with the received signal. Thus, the four radios 405a, 405b, 405c and 405d shown in FIG. 4 operate independently, but in parallel to derive the quality metrics based on the reception quality of the radio message.

Applicants' claim 1 recites that the preamble received by multiple antennas is sequentially evaluated. In contrast, Linsay et al. teach that multiple antennas and their corresponding radios evaluate the signals in parallel. This is repeated again in the ABSTRACT that states the antenna selector simultaneously converts and formats the serial data for each radio unit. At least this claimed feature of Applicants' claim 1 is not taught or suggested by the relied on reference of Linsay et al. Accordingly, the rejection

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of claim 1 under 35 U.S.C. §103(a) as being unpatentable over Linsay et al. should be withdrawn.

Claims 2-7 depend, either directly or indirectly, from base claim 1 and are believed to be allowable based on claim 1 being allowable.

As stated, Linsay et al. teach a plurality of receiver chains (radios), with each receiver chain independently demodulating the signal received by the antenna attached to that particular receiver chain. Note that claim 3 further delineates and differentiates Applicants' claimed invention from Linsay et al. by reciting that the signals received by the multiple antennas are demodulated in a single receiver chain. Clearly, this feature of Applicants' claim 3 is not taught or suggested by Linsay et al.

#### **Claims 8-14**

Applicants' claim 8 recites, among other things, controlling a switch to sequentially evaluate signals received by at least three antennas in a single receiver chain where the signals are symbols in a preamble used to evaluate signal quality.

In FIG. 8B Linsay et al. teach a diversity controller 830 that selects one or more of the radio units for communication. This figure, along with FIG. 4, show four parallel communication paths that include an antenna 403, a radio 405, an interface 407 and a serial to parallel converter 416 in each of the paths. In column 9, lines 19-22, Linsay et al. teach that each radio unit outputs a corresponding serial data signal to the diversity controller 830. Diversity controller 830 selects the antenna and radio unit for communication based on a high score gathered from correlation magnitude data, RSSI difference data, RSSI average score data, HSQ flag and a Cyclic Redundancy Check (CRC) flag (see column 10, lines 24-39). The antenna and communication path with the high score as selected by antenna selector 839 becomes the active antenna/communication path.

Note that whereas Linsay et al. teach four antennas and four receiver paths, Applicants' claim 8 recites "at least three antennas in a single receiver chain". Accordingly, Linsay et al. do not teach or suggest multiple antennas

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coupled to a single receiver chain, and therefore, this reference does not make Applicants' claim 8 unpatentable.

Claims 9-14 depend directly from base claim 8 and are believed allowable based on claim 8 being allowable.

#### **Claims 15-18**

Applicants' amended claim 15 recites, among other things, a Network Interface Card (NIC) having at least three antennas coupled through a switch to a single receiver chain.

Again, Linsay et al. do not teach a single receiver chain, but multiple receiver chains. Linsay et al. state that each radio unit 802 includes a receiver 805 (see column 8, lines 63-66). Thus, the relied upon reference teaches at least three antennas, but then further teaches at least three receiver chains. Note that Linsay et al. only teach a receiver chain for each antenna, and therefore, Linsay et al. have no need for a switch to couple multiple antennas to a single receiver chain. At least these features of Applicants' claim 15 are not taught or suggested by Linsay et al., and accordingly, this reference does not make Applicants' claim 15 unpatentable.

Claims 16-18 depend directly from base claim 15 and are believed allowable based on claim 15 being allowable.

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**Conclusion**

The foregoing is submitted as a full and complete response to the Office Action mailed September 22, 2004, and reconsideration of the rejections is requested. It is submitted that claims 1-18 are in condition for allowance. Allowance of these claims is earnestly solicited.

Should it be determined that an additional fee is due under 37 CFR §1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #50-0221.

If the Examiner believes that there are any informalities that can be corrected by an Examiner's amendment, a telephone call to the undersigned at (480) 715-5388 is respectfully solicited.

Respectfully submitted,  
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